

Date: Fri, 4 Feb 94 23:28:31 PST
From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>
Errors-To: Info-Hams-Errors@UCSD.Edu
Reply-To: Info-Hams@UCSD.Edu
Precedence: Bulk
Subject: Info-Hams Digest V94 #114
To: Info-Hams

Info-Hams Digest Fri, 4 Feb 94 Volume 94 : Issue 114

Today's Topics:

 ((THANKS!!)) re 40m CW QRP
 940 pll unlock problem
 A code speed question
Daily Summary of Solar Geophysical Activity for 03 February
Daily Summary of Solar Geophysical Activity for 31 January
 From Usenet to print
 Johnson Radio
 Ramsey FX Transceivers

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: 3 Feb 1994 16:46:04 GMT
From: hpg30a.csc.cuhk.hk!saimiri.primite.wisc.edu!news.doit.wisc.edu!uwm.edu!
vixen.cso.uiuc.edu!howland.reston.ans.net!news.intercon.com!udel!
news.sprintlink.net!news.clark.net@munniari.oz.au
Subject: ((THANKS!!)) re 40m CW QRP
To: info-hams@ucsd.edu

To all of you who responded to my original post seeking your experiences
on 40 meter QRP, many thanks! Your comments were much appreciated. I
tried to respond by e-mail individually, but I may have missed a few folks.
So thanks again, & 73. -andy/k4adl

Date: 3 Feb 94 18:15:47 GMT

From: ucsnews!sol.ctr.columbia.edu!usenet.ucs.indiana.edu!vixen.cso.uiuc.edu!
aries!hawley@network.ucsd.edu
Subject: 940 pll unlock problem
To: info-hams@ucsd.edu

Thanks for the email suggestions. I finally hung the scope on pll1, then
pll2, etc. I had to look at the scope for up to 5 min to catch a unlock...
kind of a long time for a fast oxidizer. The results were: CAR stayed up,
pll1 stayed up, but pll2 failed. The inputs to pll2 stayed up. Upon inspection
C68, a coupling cap in the vco of pll2, had a cracked solder connection. It
was hard to see, and hard to determine if it was cracked all the way around.
Anyway, resoldering the joint fixed the problem. I wonder if the often reported
cure of unplugging and plugging connectors results in an apparent cure due to the
mechanical flexing of the board. Someone complained about the phenolic boards.
Do they cause these cracked joints over time?
So I'm happy now.....for awhile.

Chuck Hawley
KE9UW

Date: Thu, 3 Feb 1994 07:55:40 -0500
From: ucsnews!sol.ctr.columbia.edu!howland.reston.ans.net!news.cac.psu.edu!psuvm!
cunyvm!rohvm1!rohvm1.mah48d@network.ucsd.edu
Subject: A code speed question
To: info-hams@ucsd.edu

In article <2ip1ip\$15s@cismsun.univ-lyon1.fr>, elendir@enst.fr (Elendir)
wrote:

> I am learning the morse code, and occasionally I try accelerated rates
> (15 wpm, e.g). And while I can get many letters, I find it impossible to
> write them down. So this is my question :
> How can you achieve at the same time listening and writing of the letters
> at such speeds ? That seems a mistery to me.

Practice!

Actually, that was how I learned Morse...listen to fast transmissions,
write down as much as I could, and look for a pattern of letters I was
missing. Then I'd concentrate on those for a while. Pretty soon I was
getting them all, and at 15 wpm or so. I ran into another writing block at
about 25-30 wpm that I've never overcome. I can listen and comprehend at
35 - 40, but can't get it down on paper much beyond 25.

Hang in there-you'll get it with persistence.

--

73 de John Taylor W3ZID
rohvm1.mah48d@rohmmaas.com

Date: Fri, 4 Feb 1994 14:06:31 MST
From: agate!usenet.ins.cwru.edu!magnus.acs.ohio-state.edu!math.ohio-state.edu!
cyber2.cyberstore.ca!nntp.cs.ubc.ca!alberta!ve6mgs!usenet@network.ucsd.edu
Subject: Daily Summary of Solar Geophysical Activity for 03 February
To: info-hams@ucsd.edu

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DAILY SUMMARY OF SOLAR GEOPHYSICAL ACT

03 FEBRUARY, 1994

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(Based In-Part On SESC Observational Data)

SOLAR AND GEOPHYSICAL ACT

!!BEGIN!! (1.0) S.T.D. Solar Geophysical Data Broadcast for DAY 034, 02/03/94
10.7 FLUX=097.9 90-AVG=106 SSN=062 BKI=0223 3221 BAI=007
BGND-XRAY=A9.5 FLU1=8.2E+05 FLU10=1.2E+04 PKI=1233 3321 PAI=010
BOU-DEV=000,014,019,021,035,015,015,009 DEV-AVG=016 NT SWF=00:000
XRAY-MAX= C1.5 @ 0418UT XRAY-MIN= A7.5 @ 1633UT XRAY-AVG= B1.6
NEUTN-MAX= +001% @ 1955UT NEUTN-MIN= -003% @ 1700UT NEUTN-AVG= -0.5%
PCA-MAX= +0.1DB @ 2110UT PCA-MIN= -0.3DB @ 1150UT PCA-AVG= -0.0DB
BOUTF-MAX=55349NT @ 1530UT BOUTF-MIN=55328NT @ 2025UT BOUTF-AVG=55340NT
GOES7-MAX=P:+000NT@ 0000UT GOES7-MIN=N:+000NT@ 0000UT G7-AVG=+069,+000,+000
GOES6-MAX=P:+127NT@ 1726UT GOES6-MIN=N:-064NT@ 0845UT G6-AVG=+092,+030,-027
FLUXFCST=STD:100,100,095;SESC:100,100,095 BAI/PAI-FCST=005,005,010/010,010,010
KFCST=1112 2111 1112 2111 27DAY-AP=006,008 27DAY-KP=1113 3121 1233 3221
WARNINGS=
ALERTS=
!!END-DATA!!

NOTE: The Effective Sunspot Number for 02 FEB 94 was 59.7.
The Full Kp Indices for 02 FEB 94 are: 10 20 3+ 40 5- 3- 2- 10
The 3-Hr Ap Indices for 02 FEB 94 are: 4 8 17 27 37 13 7 4

SYNOPSIS OF ACT

Solar activity was low. Three C-class flares were observed over the last 24 hours. One of these was from newly numbered Region 7666 (N17E51), a small C-type group. Region 7663 (N12W48) also contributed a C-flare and showed some slow growth. The remainder of the disk was quiet and stable.

Solar activity forecast: solar activity is expected to be very low to low.

The geomagnetic field was generally quiet to unsettled. Some periods of active conditions were observed at high latitudes between 0900-1800Z.

Geophysical activity forecast: the geomagnetic field is expected to be predominantly quiet to unsettled for the next three days. Possible effects from the filament disappearance of 01 February provide a slight chance for active conditions on the third day.

Event probabilities 04 feb-06 feb

Class M	05/05/05
Class X	01/01/01
Proton	01/01/01
PCAF	Green

Geomagnetic activity probabilities 04 feb-06 feb

A. Middle Latitudes

Active	05/10/25
Minor Storm	05/05/10
Major-Severe Storm	01/01/05

B. High Latitudes

Active	05/10/30
Minor Storm	05/05/10
Major-Severe Storm	01/01/05

HF propagation conditions were normal over all regions. No changes are expected over the next 72 hours, through 06 Feb inclusive.

COPIES OF JOINT USAF/NOAA SESC SOLAR GEOPHYSICAL REPORTS

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LISTING OF SOLAR ENERGETIC EVENTS FOR 03 FEBRUARY, 1994

BEGIN	MAX	END	RGN	LOC	XRAY	OP	245MHZ	10CM	SWEEP
0135	0135	0136					110		

POSSIBLE CORONAL MASS EJECTION EVENTS FOR 03 FEBRUARY, 1994

BEGIN	MAX	END	LOCATION	TYPE	SIZE	DUR	II	IV
NO EVENTS OBSERVED								

INFERRED CORONAL HOLES. LOCATIONS VALID AT 03/2400Z

ISOLATED HOLES AND POLAR EXT									
EAST	SOUTH	WEST	NORTH	CAR	TYPE	POL	AREA	OBSN	
NO DAT									

SUMMARY OF FLARE EVENTS FOR THE PREVIOUS UTC DAY

Date	Begin	Max	End	Xray	Op	Region	Locn	2695 MHz	8800 MHz	15.4 GHz
02 Feb:	1912	1935	2012	B4.0						

REGION FLARE STATISTICS FOR THE PREVIOUS UTC DAY

	C	M	X	S	1	2	3	4	Total	(%)
Uncorrelated:	0	0	0	0	0	0	0	0	001	(100.0)

Total Events: 001 optical and x-ray.

EVENTS WIT

Date	Begin	Max	End	Xray	Op	Region	Locn	Sweeps/Optical Observations
NO EVENTS OBSERVED.								

NOTES:

All times are in Universal Time (UT). Characters preceding begin, max, and end times are defined as: B = Before, U = Uncertain, A = After. All times associated with x-ray flares (ex. flares which produce

associated x-ray bursts) refer to the begin, max, and end times of the x-rays. Flares which are not associated with x-ray signatures use the optical observations to determine the begin, max, and end times.

Acronyms used to identify sweeps and optical phenomena include:

II	= Type II Sweep Frequency Event
III	= Type III Sweep
IV	= Type IV Sweep
V	= Type V Sweep
Continuum	= Continuum Radio Event
Loop	= Loop Prominence System,
Spray	= Limb Spray,
Surge	= Bright Limb Surge,
EPL	= Eruptive Prominence on the Limb.

** End of Daily Report **

Date: Tue, 1 Feb 1994 20:07:58 MST
From: mvb.saic.com!connected.com!news.sprintlink.net!nic.hookup.net!
paladin.american.edu!howland.reston.ans.net!math.ohio-state.edu!
cyber2.cyberstore.ca!nntp.cs.ubc.ca!alberta!ve6mgs!usenet@network
Subject: Daily Summary of Solar Geophysical Activity for 31 January
To: info-hams@ucsd.edu

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DAILY SUMMARY OF SOLAR GEOPHYSICAL ACT

31 JANUARY, 1994

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(Based In-Part On SESC Observational Data)

SOLAR AND GEOPHYSICAL ACT

!!BEGIN!! (1.0) S.T.D. Solar Geophysical Data Broadcast for DAY 031, 01/31/94
10.7 FLUX=097.6 90-AVG=106 SSN=081 BKI=2122 1202 BAI=005
BGND-XRAY=B1.4 FLU1=4.8E+05 FLU10=3.7E+04 PKI=2132 2223 PAI=007
BOU-DEV=013,009,015,012,006,010,003,016 DEV-AVG=010 NT SWF=00:000
XRAY-MAX= B4.8 @ 0415UT XRAY-MIN= B1.1 @ 0158UT XRAY-AVG= B2.2
NEUTN-MAX= +002% @ 2220UT NEUTN-MIN= -002% @ 2320UT NEUTN-AVG= -0.1%

PCA-MAX= +0.1DB @ 2045UT PCA-MIN= -0.3DB @ 1400UT PCA-AVG= -0.0DB
 BOUTF-MAX=55348NT @ 1220UT BOUTF-MIN=55330NT @ 2237UT BOUTF-AVG=55340NT
 GOES7-MAX=P:+000NT@ 0000UT GOES7-MIN=N:+000NT@ 0000UT G7-AVG=+064,+000,+000
 GOES6-MAX=P:+117NT@ 1909UT GOES6-MIN=N:-056NT@ 0751UT G6-AVG=+086,+030,-026
 FLUXFCST=STD:100,100,100;SESC:100,100,100 BAI/PAI-FCST=010,010,005/012,012,010
 KFCST=2223 4322 2233 4321 27DAY-AP=006,005 27DAY-KP=1322 2110 1112 2212
 WARNINGS=
 ALERTS=
 !!END-DATA!!

NOTE: The Effective Sunspot Number for 30 JAN 94 was 53.0.
 The Full Kp Indices for 30 JAN 94 are: 3- 1- 2+ 3- 3- 3- 3- 2o
 The 3-Hr Ap Indices for 30 JAN 94 are: 11 3 10 11 12 12 11 7

SYNOPSIS OF ACT

Solar activity was very low. All regions on the disk were quiet and stable.

Solar activity forecast: solar activity is expected to be very low to low.

The geomagnetic field was predominantly quiet to unsettled.

Geophysical activity forecast: the geomagnetic field is expected to be generally unsettled for the next two days and should be quiet to unsettled on the third day.

Event probabilities 01 feb-03 feb

Class M	01/01/01
Class X	01/01/01
Proton	01/01/01
PCAF	Green

Geomagnetic activity probabilities 01 feb-03 feb

A. Middle Latitudes	
Active	10/15/10
Minor Storm	05/05/05
Major-Severe Storm	01/01/01
B. High Latitudes	
Active	15/15/10
Minor Storm	10/10/05
Major-Severe Storm	05/05/01

HF propagation conditions were normal over all regions.
No changes are foreseen over the next 72 hours.

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REGIONS WIT

NMBR	LOCATION	LO	AREA	Z	LL	NN	MAG	TYPE
7659	S13W71	150	0000	AXX	00	001	ALPHA	
7661	N10W55	134	0000	AXX	00	001	ALPHA	
7662	S17W04	083	0060	DAO	06	014	BET	
7663	N13W07	086	0000	AXX	00	001	ALPHA	
7664	S13E41	038	0010	BX0	02	003	BET	
7665	N04E53	026	0080	HSX	02	001	ALPHA	
7660	S09W35	114					PLAGE	

REGIONS DUE TO RET

NMBR LAT

NONE

LISTING OF SOLAR ENERGETIC EVENTS FOR 31 JANUARY, 1994

BEGIN	MAX	END	RGN	LOC	XRAY	OP	245MHZ	10CM	SWEEP	SWF
NO EVENTS OBSERVED										

POSSIBLE CORONAL MASS EJECTION EVENTS FOR 31 JANUARY, 1994

BEGIN	MAX	END	LOCATION	TYPE	SIZE	DUR	II	IV
31/03111	0417	0507		LDE	B4.8	116		

INFERRED CORONAL HOLES: LOCATIONS VALID AT 31/2400Z

ISOLATED HOLES AND POLAR EXT									
	EAST	SOUTH	WEST	NORTH	CAR	TYPE	POL	AREA	OBSN
60	S20W18	S28W26	S26W30	S14W22	111	ISO	POS	003	10830A
61	S40E88	S40E88	S30E34	S18E48	020	ISO	NEG	020	10830A

SUMMARY OF FLARE EVENTS FOR THE PREVIOUS UTC DAY

Date	Begin	Max	End	Xray	Op	Region	Locn	2695 MHz	8800 MHz	15.4 GHz
------	-------	-----	-----	------	----	--------	------	----------	----------	----------

30 Jan: 0102 0110 0118 C3.2

REGION FLARE STATISTICS FOR THE PREVIOUS UTC DAY

	C	M	X	S	1	2	3	4	Total	(%)
	--	--	--	--	--	--	--	--	---	-----
Uncorrelated:	1	0	0	0	0	0	0	0	001	(100.0)

Total Events: 001 optical and x-ray.

EVENTS WIT

Date	Begin	Max	End	Xray	Op	Region	Locn	Sweeps/Optical Observations
-----	-----	-----	-----	-----	--	-----	-----	-----
30 Jan:	0102	0110	0118	C3.2				III

NOTES:

All times are in Universal Time (UT). Characters preceding begin, max, and end times are defined as: B = Before, U = Uncertain, A = After. All times associated with x-ray flares (ex. flares which produce associated x-ray bursts) refer to the begin, max, and end times of the x-rays. Flares which are not associated with x-ray signatures use the optical observations to determine the begin, max, and end times.

Acronyms used to identify sweeps and optical phenomena include:

II	= Type II Sweep Frequency Event
III	= Type III Sweep
IV	= Type IV Sweep
V	= Type V Sweep
Continuum	= Continuum Radio Event
Loop	= Loop Prominence System,
Spray	= Limb Spray,
Surge	= Bright Limb Surge,
EPL	= Eruptive Prominence on the Limb.

** End of Daily Report **

Date: Fri, 04 Feb 94 15:58:39 PST
From: netcomsv!netcomsv!boo!drc!ratz@decwrl.dec.com
Subject: From Usenet to print

To: info-hams@ucsd.edu

paulb@harley.tti.com (Paul Blumstein) writes:

> So, I cleaned it up & resubmitted it. It is on page 27 of the February
> issue. Thanks to those that suggested that I publish it!

K00L! I didn't wite.. But I thought it was kinda neet.. Good going!

Date: Thu, 3 Feb 1994 16:33:00 GMT
From: library.ucla.edu!europa.eng.gtefsd.com!howland.reston.ans.net!cs.utexas.edu!
natinst.com!ornl!usenet@network.ucsd.edu
Subject: Johnson Radio
To: info-hams@ucsd.edu

I am looking for information concerning a Johnson model jph5141 radio, i'm not
sure if the model number is correct or complete but it's all I have at the time .

any information would be greatly appreciated

Date: 3 Feb 1994 05:37:43 GMT
From: koriel!newscast.West.Sun.COM!abyss.West.Sun.COM!sunspot!myers@decwrl.dec.com
Subject: Ramsey FX Transceivers
To: info-hams@ucsd.edu

In article jjc@unbc.edu, lyndon@unbc.edu (Lyndon Nerenberg) writes:

>myers@sunspot.West.Sun.COM (Dana Myers) writes:

>> I had the experience of tinkering

>>with well-built, high-performance radios. An FX-440, for example,

>>is de-sensed by anything transmitting below 440MHz.

>

>I too have a pile of modified commercial gear that I use. I can tell you

>horror stories about some of *those* rigs, too. As for desense on the

>FX-440, can't that be solved with an outboard bandpass filter?

I'm curious about your horror stories on modified commercial gear. People
frequently use the term "convert" or "modify" when talking about commercial
land-mobile gear and ham radio. Now, I know someone who moved a VHF-High Band
GE Mastr Exec II to 220Mhz, _that_ required modification. However, I've
never had to actually modify any radios like that. I try to buy the radios on
the correct split, and then put them on frequency using the tuning instructions
in the service manual.

Of the radios I've tinkered with, all of the land-mobile gear was extremely

good. If someone dinks heavily with the radio, sure, it may not work well, but I've never had to dink heavily with one. The closest I may have come was swapping the capacitors in a Micor VHF High-band exciter to make it a low-split exciter, but that used standard values from the service manual and works like a charm.

Try sharing your horror stories where you tuned and operated land-mobile gear in accordance with the service manual...

>>Well, I've pointed out three radios that are far superior to the
>>Ramsey FX-146, and I bought all of them for under the cost of one
>>Ramsey FX-146 and cabinet.

>

>Yup, me too. Sometimes, though, it's tough to find surplus commercial
>gear. And some of that gear requires a microscope and tweezers to work
>on. In both cases, the FX kits are a viable alternative.

Hmmm... not even my MCX100s require microscopes and tweezers. As for
availability,
call John Lansdale and ask for his price sheet. He sells VHF Lo-band (for 6m)
Micors, complete with control group, for \$75+shipping.

>>The method to generate useful SS is either by DDS frequency hopping
>>or I/Q modulated carrier. PLL approach to SS is doomed to relatively
>>few hops/second and/or considerable "bounce" in the desired frequency.

>

>Who said anything about *useful* ? I said I want to *experiment*. Maybe
>I want to find these things out myself? If I wanted commercial grade SS
>I'd buy a pair of WaveLAN boards.

Well, you did say you wanted to experiment with SS. I _assumed_ you meant
actual, working SS. If you just want to generate a bunch of RF noise, have fun.
Somehow the response "who said anything about *useful* ?" took a chunk out of
your technical credibility. I guess we're in a flame war :-).

How about actually building a working SS link? How about looking at the
body of published material on such technology? Am I sensing just a tad
of NIH (Not-Invented-Here) attitude?

>>>It's a shame that the Amateur Experimental Service has turned into the
>>>Amateur Appliance Service.

>

>>It is a shame amateurs won't take advantage of readily available
>>high-quality surplus to use as a platform for experimentation and spend
>>considerable effort defending junk radios that don't even come up to the
>>performance standards of a Part 15 cordless telephone. :-)

>

>Ya, but you just backed up my point - it's not an experimental service

>any more...

Can you take a moment and explain how I've backed your point up? If you think that repeating ancient experiments to verify that they indeed fail is advancing the state of the radio art, I guess I'm backing up your point. If you think taking a DDS synthesizer and integrating into a UHF Micor to experiment with SS is operating an appliance, then, yes, I'm backing up your point.

Buying some box of parts, soldering it together and asking for a radio check on the local repeater is awfully close to appliance operating, don't you think?

* Dana H. Myers KK6JQ, DoD 466 | Views expressed here are *
* (310) 348-6043 | mine and do not necessarily *
* Dana.Myers@West.Sun.Com | reflect those of my employer *
* This Extra supports the abolition of the 13 and 20 WPM tests *

Date: 3 Feb 1994 17:18:04 GMT

From: korie1!newscast.West.Sun.COM!abyss.West.Sun.COM!pongo!myers@decwrl.dec.com

To: info-hams@ucsd.edu

References <2ht0ia\$9r8@unbc.edu>, <2i2bmrINN5hu@abyss.West.Sun.COM>,
<750@comix.UUCP>ns.net

Subject : Using land-mobile gear (was Re: Ramsey FX Transceivers

In article <750@comix.UUCP> jeffl@comix.UUCP (Jeff Liebermann) writes:

>In article <2i2bmrINN5hu@abyss.West.Sun.COM> myers@sunspot.West.Sun.COM (Dana Myers) writes:

>>

>>It is a shame amateurs won't take advantage of readily available
>>high-quality surplus to use as a platform for experimentation and spend
>>considerable effort defending junk radios that don't even come up to the
>>performance standards of a Part 15 cordless telephone. :-)

>

>Ah, this brings back fond memories of the early 1960's. The
>commercial services were replacing their wide band FM radios
>with narrow band FM boxes. For a mere pittance, you could
>have a 60 lb block of sold iron, complete with a Carter Super
>Motor Dynamotor, Mallory synchronous vibrator power supply,
>loctal tubes, and persuader microphone. (Ah, nostalgia).
>With a starter relay to the on-off switch and welding cable
>to the trunk, one could have a radio far superior to the typical
>"ham" AM (not FM) radio of the day. "Goonie-birds" (Gonset
>Communicator I thru IV) were grossly inferior to the average

>commercial radio. Why would anyone want a non-commercial radio?

I'm sure the recollections of 30 years ago are warm, nostalgic memories, but they have nothing to do with the actual discussion. My point is simply that one can take the \$175 they'd spend to buy a Ramsey kit, hunt around, and come up with a perfectly useful radio. The mention of boat-anchor wide-band FM radios is misleading; sure Micors are kind of bulky, but Custom MVPs are small and MCX100s are even smaller. You can't criticize the receiver performance, other than it often helps to add a GaAsFET pre-amp to the radios which don't have a pre-amp.

As for learning, the service manuals go over the radio in quite a bit of detail. They don't explain how to build it, but they do explain the theory quite well. Everytime I say this, Ramsey advocates change the subject. Even John Ramsey changed the subject when I made this comment.

--

* Dana H. Myers KK6JQ, DoD 466 | Views expressed here are *
* (310) 348-6043 | mine and do not necessarily *
* Dana.Myers@West.Sun.Com | reflect those of my employer *
* This Extra supports the abolition of the 13 and 20 WPM tests *

Date: Thu, 3 Feb 1994 17:39:52 GMT
From: telesoft!garym@uunet.uu.net
To: info-hams@ucsd.edu

References <2igvqt\$ov2@tcomeng.tcomeng.com>, <hatunenCKI4Mx.4HD@netcom.com>,
<tweekCKI8FK.5xr@netcom.com>ry
Subject : Re: FCC Database Online For Calif.

In <tweekCKI8FK.5xr@netcom.com> tweek@netcom.com (Michael D. Maxfield) writes:
>I too was hoping for a little different implementation. I noticed that
>you must exactly match the Licensee name (MC DONALDS REST works whereas
>MC DONALDS does not work) as it is in the licensee field.

I tried it today and noticed you can use * as a wildcard. So if you try
MC DONALDS* it will work.
--GaryM

Date: 3 Feb 1994 13:01:07 -0500
From: library.ucla.edu!europa.eng.gtefsd.com!howland.reston.ans.net!
news.intercon.com!udel!news.sprintlink.net!news.clark.net!news.clark.net!not-for-

mail@network.ucsd.edu
To: info-hams@ucsd.edu

References <ah301-260194121225@129.228.248.39>, <2i8rnf\$o5n@explorer.clark.net>,
<CKM79r.45H@sunsrvr6.cci.com>ude1
Subject : Re: htx-202 or dj-162 ?

In article <CKM79r.45H@sunsrvr6.cci.com>, James D. Cronin <jdc@cci.com> wrote:

>In article <2i8rnf\$o5n@explorer.clark.net>,

>matt roberts <robocop@clark.net> wrote:

>>In article <ah301-260194121225@129.228.248.39>,

>>Jerry Sy <ah301@yfn.ysu.edu> wrote:

>>>I have pretty much narrowed down my choice to these two 2m ht's.

>>

>>>I'd like to get comments and opinions from people in the net who

>>>have actually used both.

>>>currently, I am leaning towards the dj-162 because of its wide

>>>receive.

>>

>>The HTX202 is a good radio. It comes with the CTCSS, DTMF squelch, and

>>it can store telephone numbers. It has 14 memories, I think.

>I'll second the motion. The HTX-202 is also more sensitive on receive
>than my ICOM-27H, of a late 70's or early 80's vintage. And the price
>is right when Radio Shack runs one of their periodic "sales".

The radio is also free of intermod. I hear a lot of complaints on the
air about intermod, but I never hear these from HTX202 owners.

--

Matt Roberts 410-451-0790
CompuServe: 73042,16
Genie: G.roberts1
Amateur radio: n3gzm@wb3v.md.usa.na

Date: 4 Feb 94 03:16:16 GMT
From: ogicse!emory!kd4nc!ke4zv!gary@network.ucsd.edu
To: info-hams@ucsd.edu

References <gtaylor.315.0@taex003n.tamu.edu>, <20@w2xo.pgh.pa.us>,
<2ip6he\$933@cascade.ens.tek.com>
Reply-To : gary@ke4zv.atl.ga.us (Gary Coffman)
Subject : Re: Help - your Vertical Ant. experiences.

In article <2ip6he\$933@cascade.ens.tek.com> t1terryb@cascade.ens.tek.com (Terry Burge) writes:

>Just for the record, I will state it again. A ground plane antenna has higher
>gain than a vertical dipole. A quarter wave ground plane has a gain of some-
>where around 6 db over isotropic where a dipole has a gain of 2.14 db over
>isotropic at it's theoretical best. Gain in an antenna is directly related
>to it's RF pattern. I believe the reason a ground plane has more gain than
>a vertical dipole is because it has a more concentrated pattern like an
>elongated tear drop as opposed to the fat donut shape of a dipole.

Repeating false statements makes them no less false. A 1/4 wave vertical over a *perfect* groundplane has *exactly* the same gain and pattern as a 1/2 wave vertical. But alas, there are no perfect groundplanes in the real world, so all real 1/4 wave verticals have less gain than 1/2 wave verticals because of losses in the imperfect current mirror.

> As to whether an R5 or R7 are vertical dipoles or half wave verticals,
>I am no expert on them. I have never used one. But from everything I have
>read about vertical antennas, they must have a ground plane to mimic the
>other half of the antenna. Some systems utilize the shield of the coax cut
>to a certain length to do this I believe...seems some VHF/UHF antennas lend
>themselves to this. Other than that, ground rods would help as would sea water
>too.

A 1/2 wave antenna, it doesn't matter if it's fed in the middle or from the end, doesn't require a current mirror, so it doesn't require a groundplane or any other connection to ground. It's a resonant structure by itself, there is no "other half" required. On the other hand, a 1/4 wave vertical is self-resonant at *twice* the design frequency in the absence of a current mirroring groundplane. So it must have a groundplane to function as a 1/4 wave vertical antenna at the design frequency.

> It is true that a half wave vertical has more gain than a 1/4 wave
>vertical.

What? You just stated otherwise above. Make up your mind.

>It is not true that a 5/8 wave vertical is the highest gain vertical.
>What it is is the best compromise for the gain and angle of radiation. As the
>vertical element, or any element for that matter, gets longer for a given
>wavelength the major lobe/lobes emanating from the antenna start skewing(sp)
>towards the far end of the antenna. This is why long wire antennas several wave
>length long at a given frequency are directional antennas. And, why Rhombic
>antennas are a combination of this characteristic.

Well that's almost true anyway. The 5/8 wave vertical over real ground has the best gain perpendicular to it's axis of any *simple*

vertical antenna. Stacked and phased sections can have more gain toward the horizon. Really long antennas develop minor lobes and have their power directed in multiple undesired directions.

Gary

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